

Report on the Implications of Modifying the California Single Subject Examinations for Teachers (CSET: SS) to Assess Basic Skills in Reading, Writing, and Mathematics

A Report to the Legislature as Required by SB 1209 (Chap. 517, Stats. 2006)

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This report was developed by Phyllis Jacobson of the Professional Services Division of
the Commission on Teacher Credentialing. For more information about the content of
this report, contact pjacobson@ctc.ca.gov.

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California Commission on Teacher Credentialing 1900 Capitol Avenue Sacramento, California 95814 (916) 445-7254 (888) 921-2682 (toll free) (916) 327-3165 (Fax)

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# **Commission on Teacher Credentialing**



1900 Capitol Avenue Sacramento, CA 95814

(916) 445-0184

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# A Report to the Legislature

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# Implications of Modifying the California Single Subject Examinations for Teachers (CSET: SS) to Assess Basic Skills in Reading, Writing, and Mathematics

# A Report to the Legislature

## **EXECUTIVE SUMMARY**

A public study session was held by the Commission at its June 2007 meeting to solicit public input regarding the implications and feasibility of modifying the CSET: Single Subject (CSET: SS) examinations to assess basic skills in reading, writing, and mathematics. The public study session and required report to the Legislature due by October 1, 2007 were initiated by SB 1209 (Chap. 517, Stats. 2006), now found in subsection 44252.6(d) of the California Education Code.

Education Code §44252.6(d) requires the Commission to hold this study session as part of a broader initiative to streamline credential requirements. This law specifically requires that the public be offered an opportunity "to comment on the implications, costs, and validity of modifying these assessments."

At the study session, Commission staff provided background information about the two examinations under consideration, the CSET: SS and the CBEST, and solicited public input about the implications, costs, and validity of modifying the CSET: Single Subject examinations to assess basic skills in reading, writing, and mathematics. Several options for potentially modifying the CSET: Single Subject examinations to include content and/or test items specifically relating to basic skills assessment within these examinations were presented for discussion.

One written communication was received by the Commission prior to the public study session and six individuals provided in-person comments at the study session. All commenter's recommended that the CSET: Single Subject examinations <u>not</u> be modified to include an assessment of basic skills in reading, writing and mathematics. The major reasons stated as to why the public did not support including basic skills (i.e., CBEST) assessment within the CSET: Single Subjects examinations may be summarized as follows:

- The depth and breadth of the subject matter content as well as of the basic skills content assessed by these two examinations would be reduced if the two examinations were to be combined into one examination;
- The ability to accurately and validly measure a candidate's knowledge, skills and abilities relative to both subject matter and basic skills would be compromised;

- The modification of the CSET: SS examinations to include basic skills content might not meet the intent or accomplish the goals of SB 1209, since SB 1209 requires that any modified CSET: SS examination must "assess basic skills in reading, writing, and mathematics....at least as comprehensively and to the level that these skills are assessed by the state basic skills proficiency test." Reducing the content of both examinations in order to combine the two into a single examination could result in not meeting this requirement;
- The two examinations have very different focuses and purposes and are based on a different set of content specifications;
- Modifications would potentially be needed for 31 different CSET: Single Subject examinations, which would be a costly and difficult process given the wide variety of content areas assessed by the subject matter examinations (including examinations given in a language other than English);
- Although the CSET: SS examinations contain some items requiring an
  original constructed response by candidates, these responses are short, are
  scored only for content and not for writing, and do not assess the same
  writing skills as required by the CBEST writing assessment in terms of
  demonstrating the candidate's ability to organize and develop a coherent,
  structured essay response using appropriate rhetorical and grammatical
  structures; and
- The validity and reliability of both examinations could be compromised if
  they were to be combined, since each examination must be based on
  content specifications adopted by the Commission that have been
  developed and validated expressly for each examination separately.

Discussion at the meeting by the Commissioners covered a range of opinions concerning the inclusion of basic skills content within the current CSET: SS examinations. In general, Commissioners were receptive to the idea of streamlining the two assessments for candidates, but at the same time were cognizant of the practical difficulties and psychometric difficulties of accomplishing this intention, as well as of the practical effects on candidates who might need to prepare for a wide variety of test content on a single examination. The Commissioners recognized that both examinations (CSET: SS and CBEST) serve a distinct and necessary purpose, but at the same time were interested in continuing to look at whatever ways might potentially allow the CSET: Single Subjects examinations to include some or all of the basic skills assessments.

The Commissioners also recognized that while the process of allowing the CSET: Multiple Subjects examination to serve as a proxy for basic skills was feasible with the addition of a new CSET: Writing Skills test, this same process would not necessarily work for the CSET: SS examinations. The CSET: Multiple Subjects examination contains some questions that relate in general to the areas of basic skills reading and mathematics, but not to writing, whereas the CSET: Single Subject examinations do not include basic skills reading and mathematics-related test items (with the exception of the CSET: Single Subject Mathematics examination). In addition, like the CSET: Multiple Subjects

examination, the CSET: SS examinations do not include a writing skills assessment.

In summary, the input received by the Commission from stakeholders and other public commenter's, as well as the comments made by Commissioners at the public study session, supported maintaining the CSET: Single Subject examinations without modification to include an assessment of basic skills. However, Commissioners were also supportive of an alternative approach whereby rather than modifying the CSET: Single Subject examinations, the basic skills assessments in reading, writing and mathematics might instead be offered to candidates on the same dates and locations as the CSET: Single Subjects examinations.

Within this approach, the three basic skills subtests of the current CBEST examination (reading, writing, and mathematics) could potentially become separate subtests within the array of the CSET: SS examinations. Candidates could register to take one or more of these subtests at any given CSET: SS testing session. This approach might allow candidates options for meeting both the subject matter competence and the basic skills requirements in a potentially more streamlined manner and timeframe. Implementing this approach, however, would require (a) potential changes to the Education Code; (b) changes to Title 5 regulations; (c) additional fiscal resources to the Commission for test item development to expand the current item bank for the basic skills assessments in order to accommodate the additional basic skills-focused testing sessions; and (d) potential amendments to existing examinations administration contracts. There might also be cost implications for candidates as additional resources would be needed to expand the number of test sites and scoring sessions for the basic skills assessment beyond those now being funded by the current CBEST fee.

## I. STUDY SESSION PURPOSE AND RATIONALE

Senate Bill 1209 (Chap. 517, Stats. 2006) requires that the Commission "shall convene a public study session to consider the implications of modifying the single subject California Subject Examinations for Teacher (CSET) to assess basic skills in reading, writing, and mathematics...at least as comprehensively and to the level that these skills are assessed by the state basic skills proficiency test... The commission, no later than October 1, 2007, shall report to the legislature on the outcome of that session..."

A primary rationale for holding a study session of this nature is to consider the potential for reducing the number of the examinations required for teacher credentialing, if there is overlap or redundancy in what is measured across these examinations. In this regard, SB 1209 requires that three issues in particular be looked at in relation to the implication of modifying the CSET: SS to assess basic skills in reading, writing, and mathematics: the implications, costs, and validity of so modifying these CSET: Single Subject assessments.

The Commission fulfilled the study session requirement by holding a public study session on the implications of modifying the CSET: Single Subject examinations to assess basic skills in reading, writing, and mathematics at its June 2007 regularly-scheduled public meeting. Section II of this report provides the agenda item presented at the Commission meeting that served as background and context for the public comments and the discussions facilitated through this public study session. Section III of this report summarizes the discussion held during the public study session following the presentation of the agenda item, and Section IV of this report summarizes the outcomes of the discussion.

## II. AGENDA ITEM FROM THE JUNE 2007 COMMISSION MEETING

# Public Study Session on the Implications of Modifying the CSET: Single Subject Examinations (CSET: SS) to Assess Basic Skills in Reading, Writing, and Mathematics

#### Introduction

Senate Bill 1209 (Chap. 517, Stats. 2006) requires that the Commission "shall convene a public study session to consider the implications of modifying the single subject California Subject Examinations for Teacher (CSET) to assess basic skills in reading, writing, and mathematics...at least as comprehensively and to the level that these skills are assessed by the state basic skills proficiency test... The commission, no later than October 1, 2007, shall report to the legislature on the outcome of that session..."

A primary rationale for holding a study session of this nature is to consider the potential for reducing the number of the examinations required for teacher credentialing, if there is overlap or redundancy in what is measured across these examinations. In this regard, SB 1209 requires that three issues in particular be looked at in relation to modifying these assessments: the implications, costs, and validity of modifying this set of assessments.

This agenda item addresses the Commission's requirement to hold a public study session to consider these topics. The information provided in this agenda item is intended to serve as a background and as a context for the public comments and the discussions facilitated through this public study session.

## The CSET: Single Subject Examinations

Education Code sections 44280 and 44281 state that the "adequacy of subject matter preparation and the basis for assignment of certified personnel shall be determined by the successful passage of a subject matter examination as certified by the commission..." and that "the commission shall select, administer, and interpret subject matter examinations, which shall be a prerequisite for assignment to assure minimum levels of subject matter knowledge by all certified personnel regardless of the pattern and place of preparation." The CSET: Single Subject examinations were developed in response to the requirements of the Education Code specifically to measure the candidates' **subject matter knowledge** across a wide range of single subject content areas.

As part of the development process, the CSET: SS examinations were aligned with the K-12 student academic content standards and frameworks, and a job analysis was performed

to ensure that the examination specifications reflected the subject matter knowledge needed by a beginning teacher.

There are currently 31 individual CSET: Single Subject examinations, as listed below:

- Agriculture
- Art
- Business
- English
- Foundational-Level Mathematics (Algebra, Number Theory, Geometry, Probability and Statistics)
- · Health Science
- Home Economics
- Industrial and Technology Education
- Languages Other Than English (each language has its own individual CSET examination):
  - o American Sign Language
  - o Arabic
  - o Armenian
  - o Cantonese
  - o Farsi
  - o Filipino
  - o French
  - o German
  - o Hmong
  - o Japanese
  - o Khmer
  - o Korean
  - Mandarin
  - o Punjabi
  - o Russian
  - o Spanish
  - o Vietnamese
- Mathematics (through Calculus)
- Music
- Physical Education
- Science: Biology/Life Science, Chemistry, Physics, and Geosciences
- Science (Specialized): Biology/Life Science, Chemistry, Physics and Geosciences)
- · Social Science

The following table shows the number of subtests, and the range of content, covered by each of these subject matter examinations:

CSET Exam	Subtest I	Subtest II	Subtest III	Subtest IV
Agriculture	Plant and Soil Science; Ornamental Horticulture	Animal Science; Environmental Science and Natural Resource Management	Agricultural Business and Economics; Agricultural Systems Technology	
Art	Artistic Perception; Historical and Cultural Context of Visual Arts; Aesthetic Valuing	Creative Expression; Connections, Relationships and Applications; History and Theories of Learning in Art		
Business	Business Management; Marketing	Accounting and Finance; Economics	Information Technology; Business Environment and Communication	
English	Literature and Textual Analysis; Composition and Rhetoric	Language, Linguistics and Literacy	Composition and Rhetoric; Literature and Textual Analysis	Communications: Speech, Media and Creative Performance
Foundational- Level Mathematics	Algebra; Number Theory	Geometry; Probability and Statistics		
Health Science	Foundations of Health Education; Human Growth and Development; Chronic and Communicable Diseases	Nutrition and Fitness; Mental and Emotional Health; Alcohol, Tobacco and Other Drugs	Family Life and Interpersonal Relationships; Consumer and Community Health; Environmental Health	
Home Economics	Personal, Family and Child Development	Nutrition, Foods and Hospitality	Fashion and Textiles, Housing and Interior Design; Consumer Education	
Industrial and Technology Education	Nature of Technology	Power and Energy; Information and Communication; Project and Product Development		

CSET Exam	Subtest I	Subtest II	Subtest III	Subtest IV
Languages Other Than English: ASL	Literary and Cultural Texts and Traditions; Cultural Analysis and Comparisons	General Linguistics; Linguistics of American Sign Language (Language Structure, Contrastive Analysis	Linguistics of American Sign Language (Error Analysis); Receptive Comprehension; Expressive Production	
Languages Other Than English (Cantonese, French, Spanish German, Japanese, Korean, Mandarin, Punjabi, Russian and Vietnamese)	General Linguistics; Linguistics of the Target Language	Literary and Cultural Texts and Traditions; Cultural Analysis and Comparisons	Language and Communication: Target Language Listening, Speaking, Reading, and Writing	
Languages Other Than English (Arabic, Armenian, Farsi, Filipino, Hmong and Khmer)	General Linguistics; Linguistics of the Target Language; Literary and Cultural Texts and Traditions; Cultural Analysis and Comparisons	Language and Communication: Target Language Listening, Speaking, Reading and Writing		
Mathematics (Foundational – Subtests I and II; Advanced – Subtest III)	Algebra; Number Theory	Geometry; Probability and Statistics	Calculus; History of Mathematics	
Music	Artistic Perception; Historical and Cultural Foundations; Aesthetic Valuing	Creative Expression; Connections: Relationships and Applications	Music Methodology and Repertoire	
Physical Education	Growth, Motor Development and Motor Learning; Science of Human Movement	Sociology and Psychology of Human Movement; Movement Concepts and Forms; Assessment and Evaluation Principles	Professional Foundations; Integration of Concepts	

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CSET Exam	Subtest I	Subtest II	Subtest III	Subtest IV
Science (General –	General Science:	General Science:	One of the following:	One of the
Subtests I and II;	Astronomy, Earth	Ecology; Genetics	Biology/Life Science	following:
Specialized –	Processes, Earth	and Evolution,	Chemistry	Biology/Life
Subtests III and	Resources, Waves,	Molecular Biology	Earth and Planetary	Science
IV)	Forces and Motion,	and Biochemistry,	Science	Chemistry
	Electricity and	Cell and Organism	Physics	Earth and
	Magnetism	Biology, Heat		Planetary
		Transfer and		Science
		Thermodynamics,		Physics
		Structure and		
		Properties of		
		Matter		
Social Science	World History;	U.S. History; U.S.	Civics; Economics;	
	World Geography	Geography	California History	

The CSET: Single Subject examinations are designed to be administered in a single testing session of five hours in length. However, candidates have the option to either take all of the subtests of a particular CSET: Single Subject examination in a single testing session or to take only one or two subtests in a single testing session. Regardless of the number of subtests for which a candidate registers, the length of the testing session is a maximum of five hours. CSET: Single Subject examinations are primarily administered in the afternoon testing session, as the CSET: Multiple Subjects examination is administered during the morning session at the same testing locations. This arrangement maximizes the efficiency of the use of test sites and testing personnel, and results in lower overall costs to examinees.

To pass a CSET: Single Subject examination, candidates must earn a passing score on each of the examination's required subtests. Each CSET subtest is scored separately. For each CSET subtest, an individual's performance is evaluated against a CTC-adopted passing score standard. Passing status is determined on the basis of total subtest performance. The total subtest score is based on the number of raw score points earned on each section (multiple-choice section and/or constructed response section), the weighting of each section, and the scaling of that score. Candidates' raw scores are converted to a scale of 100-300, with the scaled score of 220 representing the minimum passing score standard adopted by the Commission. Each subtest is scored and reported independently of the other subtests for a given single subject area. Candidate scores remain valid for a period of five years from the test date on which the scores were achieved and must be used for California certification within that time frame.

The CSET: Single Subject examinations are administered up to six times per year, every other month (September, November, January, March, May and July), as illustrated in the following schedule for the 2007-2008 testing year:

Sept	Nov	Jan	Mar	May	Jul
2007	2007	2008	2008	2008	2008

	<b>Sept 2007</b>	Nov 2007	Jan 2008	Mar 2008	May 2008	Jul 2008
English Math Science Social Science	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>
Agriculture Art Business French Health Science Home Economics Industrial Tech Education Music Physical Education Spanish	✓		<b>✓</b>	✓	<b>√</b>	
American Sign Language Arabic Armenian Cantonese Farsi Filipino German Hmong Japanese Khmer Korean Mandarin Punjabi Russian Vietnamese		✓			<b>√</b>	

## The State Basic Skills Proficiency Test (i.e., CBEST)

The California Education Code Section 44252 specifies that candidates must demonstrate proficiency in basic reading, writing, and mathematics skills, in English, by passing the state's basic skills examination. Until the passage of SB 1209, the CBEST has been the only basic skills examination specified for meeting the basic skills requirement. The CBEST is not a test of specialized subject matter knowledge, but of basic skills in these three specified areas. The basic skills requirements became effective on February 1, 1983. Since that time, passage of the CBEST has been the only method by which to meet this requirement until the passage of SB 1209 in 2006, which provided additional options to meet the basic skill requirement.

The CBEST is designed to test basic reading, writing, and mathematics skills found through an extensive job analysis to be important for the job of an educator. The test consists of three sections: reading, writing, and mathematics. The questions in the reading section assess a candidate's ability to comprehend information presented in written passages, tables, and graphs. There are 50 multiple-choice questions from two major skill areas: critical analysis and evaluation, and comprehension and research skills. The mathematics section consists of 50 multiple-choice questions from three major skill areas: estimation, measurement, and statistical principles; computation and problem solving; and numerical and graphic relationships. The writing section includes two writing topics that assess an examinee's ability to write effectively in English. One topic asks candidates to analyze a given situation or statement and the other asks them to write about a specified personal experience. Examinees must respond to both topics. Specialized content knowledge is not required in the reading and writing sections.

The CBEST is designed to be administered in a test session of a maximum of four hours. Candidates may take one, two, or all three CBEST sections during a test session. The CBEST passing requirements are based on a compensatory scoring model. The scaled scores used for reporting CBEST results range from 20 to 80 for each of the three sections. The passing score on each CBEST section is a scaled score of 41. A total score (i.e., the sum of the Reading, Mathematics, and Writing scaled scores) of 123 is required for passing status. It is possible to pass the CBEST with a scaled score on one or two sections as low as 37, provided that the total score is 123 or higher. It is not possible, however, to pass the CBEST if any section score is below 37, regardless of how high the total score may be. Once the test has been passed, the scores remain permanently valid.

The CBEST is offered six times per year, on the opposite months from the CSET examinations (August, October, December, February, April and June). The content specifications for the CBEST are provided as Attachment A to this agenda item.

Summary Comparison between the CSET: Single Subject Examinations and the State Basic Skills Assessment (i.e., the CBEST). The following chart summarizes the major comparison points between the CSET: Single Subject and the CBEST examinations. (Note: pursuant to SB 1209, candidates will have other basic skills options besides the CBEST. This chart refers only to the CBEST.)

# Summary Comparison Between the CSET: Single Subject and the State Basic Skills (i.e., CBEST) Examinations\*

	CSET: Single Subject	Basic Skills (CBEST)
Mandatory for Which California-Trained Candidates	Not Mandatory. Voluntary for single subject credential candidates (candidates may meet subject matter requirements through an approved subject matter preparation program rather than the CSET: SS exam)	Mandatory for: Initial teaching and service credentials
Format	Ranges by subject area from two subtests to four subtests	Three sections (Reading, Writing, Mathematics)
Main Applicable Education Codes	§44280 and §44281	§44252 and SB 1209 (Chap. 517, Stats. 2006)
Score Model	Not compensatory. Candidates must achieve the minimum passing score on each individual subtest.	Compensatory (i.e., higher scores on one section can compensate for lower scores on another section, within a mandatory minimum score limit).
Purpose and Content Covered	Verifies candidates' knowledge of specialized subject matter content across thirty-one different subject areas, in alignment with state frameworks and K-12 student academic content standards.	Verifies candidates' basic skills in the three general knowledge areas of Reading, Writing and Mathematics (all in English).
Type of Assessment	Includes multiple choice items and constructed responses, depending on subtest.	Includes multiple choice items and constructed responses, depending on test area (Reading, Writing, or Mathematics).
Language of Candidate Responses	In English for all examinations except for ASL and all other Languages Other Than English. In these CSET examinations there are questions and responses in the target language, not in English.	All in English.
Content Focus	CSET: Single Subject focuses on in-depth specialized subject matter knowledge. Written responses are scored based on content knowledge and are not scored for mechanics and conventions of writing.	CBEST focuses on generalized knowledge of Reading, Mathematics and Writing. Writing is scored primarily on rhetorical characteristics (organization, support and development, rhetorical force) and conventions of writing (usage, structure, conventions, appropriateness) and not on the candidate's content knowledge.

<sup>\*</sup> For more detailed information visit the CCTC web site at http://www.ctc.ca.gov.

Potential Approaches to Modifying the CSET: Single Subject Examinations to Assess Basic Skills in Reading, Writing, and Mathematics, and Implications of These Approaches

#### Introduction

One of the potential ways of streamlining credentialing requirements for candidates could be to consolidate some of those requirements where feasible. Since candidates have to pass several examinations as part of the requirements for a California credential, this is potentially an area where consolidation might be able to be accomplished. It is understandable that to the general public, it would seem a relatively simple matter to combine two examinations such as the CSET: Single Subjects and the CBEST. However, the area of teacher examinations is highly complex, and entails unique issues of examination validity and reliability, as well as legal defensibility, that must be addressed in order for these examinations to meet statutory requirements for content validity, scoring reliability, and other psychometric properties. The processes of examination development and validation are not readily visible to the public because of the need for maintaining test security. These factors make explaining the implications of combining two different assessments more complicated.

To help make examination processes more transparent, the steps that go into examination development and validation are briefly outlined in Attachment B to this agenda item. These steps align with accepted industry and professional standards in the field of testing and evaluation, and form the basis for the validity, reliability, and legal defensibility of state examinations in making decisions about candidates.

## **Focus of the Study Session**

This study session focuses on two types of examinations in particular that are taken by single subject candidates: the CBEST and the 31 different CSET: Single Subject examinations. The CBEST is used by single subject candidates to establish basic skills competence; the CSET: SS is used to establish subject matter competence. It is important to note, however, that while all Single Subject candidates need to pass a basic skills assessment, not all Single Subject candidates have to take a CSET: Single Subject examination. Single Subject candidates may complete a Commission-approved subject matter program in lieu of a CSET: SS examination. Approximately 44% of Single Subject candidates currently choose the subject matter program route to establishing their subject matter competence and 56% choose the CSET: Single Subject examinations route.

This study session is charged with considering implications of modifying the CSET: SS to assess basic skills in reading, writing, and mathematics. A starting point might be to ask whether the CSET:SS examinations might already assess at least some of the basic skills by virtue of the fact that, for example, candidates must be able to read in English in order to complete a given CSET: SS examination. In the case of basic skills in reading, for example, it is true that except for certain sections of the Languages Other Than English examinations, candidates are reading and responding to questions using English. A potential policy approach, therefore, might be to deem that candidates who

pass the CSET: SS English examination would also have met the basic skills requirement in reading and in writing. An extension of this potential policy approach could be to deem that candidates who pass the CSET: SS Mathematics examination would also have met the basic skills requirement in math. A third possible extension of this potential policy approach could be to deem that candidates who pass any of the CSET: SS examinations would also have met the basic skills requirement in reading. This policy approach could be considered similar to the policy established pursuant to SB 1209 which stipulated that multiple subject candidates who pass all sections of the CSET: Multiple Subjects examination plus pass an additional CSET: Writing Skills test would also have met the basic skills requirement.

There are three major implications of this potential policy approach, however, as it applies to single subject candidates that would need further consideration. The first of these implications is that the content of the questions on the CSET and the CBEST examinations differ in key ways. The questions to which the candidates are responding on the CSET: SS examinations ask about the candidates' specialized subject matter knowledge relating to the K-12 student academic content standards, whereas the questions on the CBEST examination ask about the candidates' basic general knowledge of reading, mathematics, and writing processes as these relate to the job requirements of being a teacher. As substantiated in the section on the process of examinations development provided in Attachment B, all examination questions must track back to specific approved content specifications in order to maintain the validity of the examination. The CSET: SS English examination, for example, does not ask about content such as "making predictions about the outcome of an event based on information from a reading selection," "challenge the statements and opinions presented in a reading selection," and "arrange the ideas in a reading selection into an outline or another form of graphic organization," to illustrate a few of the CBEST content specifications not covered by the CSET: English examination.

Given that there are differences in the content assessed by the CSET: SS in comparison to the content assessed by the CBEST, the second major implication of this potential policy approach could be that using the CSET:SS examinations for basic skills purposes might not meet the statutory requirement contained within SB 1209 that the examination "assess basic skills in reading, writing, and mathematics....at least as comprehensively and to the level that these skills are assessed by the state basic skills proficiency test."

A third major implication of this approach would be that there would be no cost reduction to candidates since the candidates would still need to pass a basic skills assessment in the area(s) not covered by the particular CSET: SS. For example, a mathematics candidate would still need to meet the basic skills requirement in writing, an English candidate would still need to meet the basic skills requirement in mathematics, and all other single subject candidates would still need to meet the basic skills requirement in mathematics and writing in English.

Another question, then, that might be posed is whether a different approach could be taken whereby the CSET: SS examinations could be modified to include questions

that specifically address the basic skills content specifications. Within this approach, the original subject-matter content of the current examination could be modified (i.e., reduced) in favor of adding new content questions based on the content specifications adopted by the Commission relating to basic skills, as outlined in Attachment A of this agenda item. This approach has several implications. First, while this approach might appear on the surface to be practical, in actuality it would entail some complex and costly examination revalidation and possibly redevelopment work, since changing the questions within an existing examination that has already been validated for content coverage, bias considerations, difficulty level, and weighting of the various subsections would require a revalidation of the modified examination and the establishment of new passing scores for each of the two to four subtests in each of the 31 test fields. Second, if a revalidation process were to result in a determination that the modified examination were no longer valid for the intended purpose (i.e., in the case of the CSET, for determining subject matter competence and/or basic skills competence) that situation would be problematic to resolve

A third implication to consider within this approach is that the content coverage of what was previously in the CSET: SS examinations would need to be reduced in order to add questions covering the new content in basic skills while still maintaining the current format and timeframe for administration of the examination. This situation might result in a potential issue with meeting the intent of the law requiring the basic skills assessment to be at least as comprehensive and to the level that these skills are assessed by the state basic skills proficiency test, since the basic skills content coverage would be significantly reduced by this approach to modifying the CSET: SS examinations.

A fourth implication to consider in this approach is that there might be a need to maintain two separate versions of the CSET: SS examinations, one that was modified to include basic skills content, and another that was not modified. This duplication might be necessary in order to meet the needs of candidates who did not need to meet the basic skills requirement via the CSET: SS examinations, such as (a) single subject candidates who chose the program route rather than the exams route to establishing subject matter competence; (b) out of state candidates who already met the basic skills requirement in another state; and (c) candidates for other teaching and service credentials. Having to maintain and score two different versions of the same examination could have a high potential for being confusing for candidates, complex for administration and scoring purposes, and difficult to track in candidate records.

If the approaches discussed thus far might not be sufficiently practicable, what about the approach of adding one or more additional subtests to the CSET: SS examinations? This approach would provide basic skills content coverage of the new material while still maintaining the validity of the current examination(s), but would also add significantly to the testing time and study requirements for candidates without reducing costs. An implication of this approach would be that it would also not represent an actual "modification" of the existing CSET: SS examination, but rather an addition to the existing examination. A second implication of this approach would be that the testing day could become very long for candidates, as the CSET examination and the CBEST

examination allow four to five hours each for the testing session.

Some additional considerations pertinent to all of the approaches outlined above are that:

- Whether or not the CSET: Single Subject series of examinations were modified to assess basic skills under any of the potential approaches, the CBEST examination would still need to continue to be available separately and to be administered separately from the CSET: Single Subject examinations in order to meet the needs of (a) single subject candidates who complete an approved program rather than the examination; (b) out of state candidates; and (c) candidates for other teaching and service credentials.
- There would not be a cost savings to the Commission or to these candidates for this
  reason if the CSET: SS examinations were to be modified under any of the approaches
  in order to assess basic skills in reading, writing and mathematics, and several of the
  approaches discussed that involve examination modification and/or revalidation and
  additional development, could result in higher costs.

The following chart summarizes these and other considerations relevant to the various approaches described above.